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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,259	01/27/2005	Akira Kuramori	OGW-0355	8277

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EXAMINER	
BELLINGER, JASON R	

ART UNIT	PAPER NUMBER
3617	

MAIL DATE	DELIVERY MODE
03/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,259	KURAMORI, AKIRA	
	Examiner	Art Unit	
	Jason R. Bellinger	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11 and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. Upon further review of the last Office action, it has been determined that said Office action was incomplete; and therefore, the finality of that action is withdrawn. Furthermore, the after-final amendment filed 1 February 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiba (JP 02071084). Shiba shows a front wheel having greater strength and weight than a rear wheel. While not specifically stated, it is well known that a front wheel having greater strength than a rear wheel has greater rigidity as well. The wheels may be a disk wheel having a disk and rim.

Shiba does not specify that the disk and/or rim of the front wheel has a greater thickness than that of the rear wheel. However, it is well known in the art that one way to cause a first wheel to be heavier or more rigid than a second wheel is to increase the thickness of the first wheel. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the front wheel of Shiba with a greater thickness than the rear wheel, dependent upon the handling characteristics (i.e. cornering, braking, etc.) and load bearing capabilities required.

Shiba does not disclose the exact ratio of the difference in rigidity between the front and rear wheels. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to give the front wheel of Shiba a rigidity 10-60% greater than that of the rear wheel, dependent upon the handling characteristics (i.e. cornering, braking, etc.) and load bearing capabilities required.

Response to Arguments

4. Applicant's arguments filed 1 February 2008 have been fully considered but they are not persuasive.

a. The Applicant argues that Shiba does not read on the claims, given the fact that the wheels disclosed in the Shiba reference is used in front-wheel drive vehicles, while the claimed invention is for use in rear-wheel drive vehicles. The Applicant then argues that the limitation of the vehicle being rear-wheel drive is not an intended use for the wheel set, given the fact that the claims are directed to a vehicle and not just the wheel set. However, it should be noted that the claims only set forth “a vehicle” in the preamble, and then the statement “wherein the vehicle is a rear-wheel drive vehicle”. The remainder of the claim limitations is drawn to the structure of the wheel set. The claims lack any additional physical structure for the drive system or the vehicle itself, and thus it is clear that the important feature of the invention is the wheel set, and not the overall vehicle.

Therefore, the type of drive system on the vehicle is still considered to be an intended use, which must result in a structural difference between the claimed

invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, it then meets the claim. In this case, the wheel set disclosed in Shiba is capable of performing the same function as the claimed wheel set, regardless of whether located on a FWD or RWD vehicle.

b. The Applicant further argues that the Shiba reference lacks any teaching of the points of the present invention, and completely lacks any disclosure of the technical concept of the claimed invention. However, it should be noted that *KSR International Co. v. Teleflex Inc.* 550 U.S. ___, 82 USPQ2d 1385 (April 30, 2007) foreclosed the need for a reference to specify a teaching or disclosure directly pertaining to the claimed invention. In this case, simple substitution of one known element for another would obtain predictable results.

Both the claimed invention and Shiba disclose wheel sets having different features between the front and rear wheels. Shiba discloses front wheels having greater strength and weight than the rear wheels. The claimed invention discloses front wheels with greater rigidity than the rear wheels. One of ordinary skill in the art at the time of the invention would have realized that a front wheel having greater strength and weight than a rear wheel would have greater rigidity as well. Shiba states that this arrangement improves the handling and reduces the weight of a FWD vehicle. The claimed invention utilizes the same concept on a RWD vehicle. One of ordinary skill in the art at the time of the invention would have found it obvious that substituting a RWD vehicle for a FWD (i.e. placing the

wheel set of Shiba on a RWD vehicle instead of a FWD vehicle) would yield predictable results. In this case, those predictable results would be that the wheel set of Shiba would reduce vibration transmitted from the front tires to the front wheels, thus increasing handling performance.

c. Regarding the fact that Shiba does not specifically state that the front wheel is thicker than the rear wheel in order to gain the greater strength and weight; one of ordinary skill in the art at the time of the invention would realize that use of a known technique to improve similar devices in the same would yield predictable results. Namely, it is well known in the art that increasing the thickness of components (i.e. rim, spokes, discs, etc.) of a wheel increases the weight and strength of that wheel. Therefore, it would have been obvious to increase the thickness of the disc or rim of the front wheel of Shiba in order to predictably increase the weight, strength, and rigidity thereof.

d. The Applicant further argues that “optimizing to minimize under-steer in a front-wheel drive vehicle would, most likely, result in an optimal rigidity difference that is different than that defined in Claim 17 because the objective of the device of Claim 17 is to improve vibration convergence of the front wheel in a rear-wheel drive vehicle". The Applicant argues that since Shiba and the claimed invention are drawn to different purposes (i.e. minimizing under-steer vs. improving vibration convergence, respectively) would result in different optimal rigidity between the front and rear wheels of the respective sets, and that Shiba’s optimal rigidity would not fall within the range set forth in Claim 17.

However, it should be noted that the Applicant has not provided any factual evidence to support this argument. Therefore, this argument is considered to be mere speculation, and insufficient to overcome the rejection.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JRB/
Jason R Bellinger
Primary Examiner
Art Unit 3617